

Published Quarterly by
HUDSON BAY MINING AND SMELTING CO., LIMITED
Flin Flon, Manitoba.

Printed by The Wallingford Press Ltd., 303 Kennedy St., Winnipeg. Engraving by Brigden's Ltd., Winnipeg.

GEORGE MAINWARING, Editor.

Vol. 10

JUNE, 1951

No. 2

## Editorial

IT must be clear to every Canadian that our steadily expanding industrial system, with its emphasis on private competitive enterprise and individual self-reliance, is the major source of our strength in these critical times.

Over the past 84 years since Confederation, we have been accumulating and using a vast amount of industrial know-how; in fact, the output of goods produced by an hour's labour has about doubled in each generation.

This remarkable growth of production has meant a continuous improvement in the material wealth of the Canadian people. It stands as a bulwark between our way of life and totalitarianism. Our tremendous productive capacity has been made possible because, all through our history, individuals have been willing to devote effort, imagination and money to increased production, more efficient production, production of new things and improvement of the old. In short, we have had access to abundant raw materials, and we have found out, and are still finding out, how to use them for the benefit of all.

The workings of our business society are complicated, to be sure, yet boiled down to essentials, they should be clear to everyone. We make goods, we sell them for a
profit, save part of that profit and plow it
back into our industries so more goods can
be produced and more jobs can be created.
Call it the profit system, the free enterprise system, or what you will, it is the
very life blood of our existence; of a way
of living which is dedicated to the idea that
individuals should have maximum opportunity to express themselves, to make the
most of their individual abilities, intellectually, spiritually and materially.

These, then, are the things we as Canadians have always stood for. They should be perfectly obvious to everyone, yet because they are so simple and so elemental a part of our lives, they are quite likely to be overlooked. These things are our heritage. In time of peace they add a peculiar zest to our community and national life. In time of peril, they are our strength.

### MODERATION WILL HELP STOP INFLATION

If you have ever watched a squirrel running in a cage, you know how inflation works—the faster prices go up, the more money people have to earn to pay them and the higher go the costs that have to be figured into still higher prices. It's a vicious circle.

Unfortunately we've been riding that inflationary squirrel cage pretty fast lately, losing sight of the obvious fact that if everybody starts rushing to buy up the things in short supply, all we'll accomplish is to raise prices until nobody can afford to buy anything. So let's take the moderate way—buy only what we really need, spend only what we really have to, knowing that if we will only wait, we are bound to get more for our money.

All we have to do is to continue to hold fast to one of our finest assets—the ability of the Canadian people to be moderate in all things, in our thinking, our actions and our habits. It's as simple as that.



Joe Dubos, Joe Peterson, Dominic Keks, Kasimir Gira, Leo Reynolds.

The North Star shaft was started March 7th.



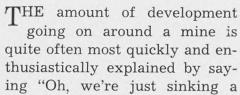
Dam construction at Schist Lake mine.



Jacob Steinarson (left front row) crew at North Star shaft.

### MINE

R. G. ASH



couple more shafts and will soon be down to the  $5{,}000$  ft. level."

Taking a statement like this more seriously, it means that the management must have complete confidence in the rock formation of our country and are trying to prove and open up orebody prospects by shaft sinking and later on by drifting, raising and stoping.

The sinking of a shaft starting at surface is by no means an idea thought up on the spur of the moment; it is an idea that has probably been in the mind of a prospector for a good many years, followed up by prospecting, geological diamond drilling and engineering crews by a large mining company. The days of a prospector and some of his friends sinking a shaft themselves are gone, as practically all showings of any importance are optioned by large companies who have ways and means of giving the property a thorough trial.

Right now, our Company is in the act of sinking three good sized shafts. These are the shafts extending from the 4000 level to 50 feet below the 5000 ft. level in the main Flin Flon Mine. A 250-ft. extension



Power shovel was used to bring muck to the surface for the first 40 feet.



Some heavy fill was necessary.

to the Schist Lake shaft will bring the depth here to 850 feet, and the North Star shaft will go down to the 1050 ft. level. These shafts are all the same size, 21/2 compartment, outside measurements of the timber being 6'4" x 15'8". A shaft this size is most suitable for a small mine; it being big enough for both a cage and skip compartment, and the other half compartment contains the manway ladder, pipes for air and water, electric and telephone cables.

Something new is always a lot more interesting than something old, so we would like to tell you a little bit about the sinking at the North Star. This prospect is considered as part and parcel of the company and the men working here are on the payroll in the same way as the men working on the sinking of the 6240 shaft underground. Work was started here on March 7th with jigger boss, Jake Steinarson; shaft miners: Don Potter and Geo. Potkonjak, and a compressor man, Nick Lucas from surface, going out to get things started. The first five days were taken up in erecting a few temporary tool and dynamite sheds, cover for the compressor, and shovelling and clearing up the location.

The first round was started by drilling 45 holes 8 ft. deep and the first blast took place on the 14th of March. Five more miners - Verne Searle, Geo. Pearson, Albert Stoltz, Frank Hurta and John

Popadyn—were then sent out to make up two complete crews and sinking in earnest continued until the 26th. The broken rock is lifted to the surface in a bucket by the power shovel. The depth reached was then 50 feet, and at once one realized that these men had done a good job, the shaft walls being very regular and straight. One of the main objectives in shaft mining is not to break any more rock than is necessary.

The next job was the setting and lining up of the bearing set on surface, and three sets of timbers hung from the same to a depth of 24 feet; the blasting set which will be used in all future blasting operations was also lowered to the bottom of the shaft. The crew spent a week or so helping to cement in the bearing set, pour the cement for the headframe piers, and level off a spot for the hoist house. They then returned to town and waited for the rigging gang to put up a permanent headframe, hoist house, and other necessary buildings.

Sinking a shaft this size entails much hard work. This is one phase of mining which has not shown much progress mechanically; there are some mechanical shaft muckers on the market but around here the mucking is still done in the same old way. However, it is noticed that the men using the shovels are able to get the muck into the bucket much faster and easier than one would expect.



Chas Baird, Sherridon, retiring Commander of Zone, 1 and Win Lowry, P.P., chairman of meeting.



Colour Party, left to right—J. M. Balfour, escort; A. E. Johnson, bearer; Robt. Davies, bearer; C. C. Setterington, escort; A. M. Walker, Sergeant-at- Arms.



Opening ceremony, district meeting.



Silence for departed comrades.

O Canada.

We Stand On Guard For Thee.







#### OPERATION PREPAREDNESS

The Government didn't adopt the Legion's program for "Operation Preparedness" but at least it was the means of stirring up a lot of discussion in Parliament and in our national daily and weekly newspapers on the Nation's defence program. The Canadian Press Clipping Service says that a considerable majority of the country's newspapers favours the Legion's proposals.

Here is what General "Ike" Eisenhower says about compulsory military training—"Train a man because he deserves it. We all worry about how we are going to train a young man for his job and his place in society. But nobody has ever worried about training them to fight.

"We (U.S.A.) have sent men overseas without training and there are more graves overseas for that reason than any other I know of."

#### VIMY

This is being written on the Anniversary of Vimy Ridge. For the first time, in our knowledge, the Branch has not celebrated the event. Cde. Jack Sturley was chairman of a committee that tried to sponsor some fitting celebration but guess the "Old Sweats" didn't feel like celebrating this year as nothing came of the matter.

However, this does not mean that the memory of Vimy will ever be forgotten by

#### ALFRED JAMES BAILEY, M.M.

16th Btn. C.E.F., 1914-1919 February, 1951

#### KEITH ARTHUR WELLS

R.C.A.F., 1940-1945 March 25th, 1951 those who took part in this great victory of Canadian arms. April 9th was a glorious day in the annals of the Canadian Army, the day on which Canada gained full status as a military nation and the day on which the first Canadian Corps proved their effectiveness against their German foe.

#### HAIL THE CHAMPS

For the fourth consecutive year our famous Legionettes have won the Manitoba Junior Girls Basketball Championship. Travelling to Winnipeg in the latter part of March they defeated the Winnipeg Junior Dominoes in two straight games by scores of 53-51 and 37-35.

Needless to say great credit is due the girls for bringing this great sporting honour to Flin Flon and the Town showed its appreciation by turning out in large numbers to greet them on their homecoming. Bert Johnson, Chairman of our Sports Committee, sparked a parade for them which led to the Elks Hall for a civic reception and banquet. The Elks Youth Band provided the necessary "Hail the Conquering Hero Comes" music for the proceedings.

Bud Rheaume is also to be congratulated for his splendid coaching.

Nice going girls — the Legion is proud of you.

Along about the tag end of the past winter some of the troops must have had some nostalgic memories of some of the old English pubs which they used to visit like the "Pig 'N Whistle" or "The Red Lion" because nothing less than DARTS made a come-back in the Canteen.

After some secret practice the Legion gang threw out challenges to the Elks and the Green Oak and some very good battles



Comrades Lil Arsenault and Pearl Oswald.



Delegates from The Pas — T. J. Bednas, secretary; C. A. McDuffy, and T. Senow, visitor from Pine River.



Sherritt No. 136, front: J. E. Portras, J. Lamont, Jr.; back: Mel Lamont, K. H. Dunn, J. H. Holden, C. C. Scott, J. G. Henderson.

Cranberry Portage No. 137: H. S. Anderson, president; R. J. Shewfelt, Secretary.



were fought. 'Arf and 'arf was served at half-time—'arf smoked Woodbines and the other 'arf drank Cokes.

"Ed." E. J. Casey will be bringing his Carnival along very shortly now, the dates being August 8, 9, 10th and 11th. As usual the Branch will welcome helpers to put our annual show over in good style.

Some of the boys got ambitious in March and decided to paint the walls of the Auditorium and they did so one Sunday afternoon.

#### FIRST OF JULY

Come rain or shine, fellas, let's turn out for the Flag raising ceremony at Phantom Lake. Let's show the younger generation that the Legion still can lead the way in demonstrating our patriotism. So, see you on Parade. Watch the press and radio for time of leaving the Hall, etc.

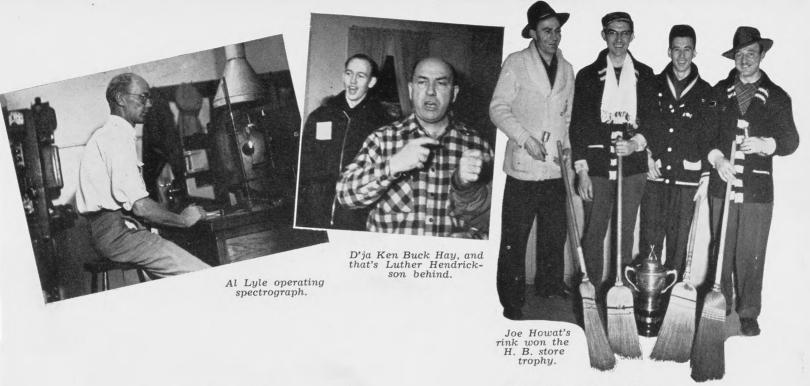
#### DISTRICT CONVENTION

Our Branch played host, on March 30th, to the other branches in Zone 1 for a district convention. Delegates were present from Flin Flon, The Pas, Island Falls, Sherridon and Cranberry Portage. The branches at Churchill, Snow Lake and Herb Lake were not represented.

Cde. Win Lowry was Chairman for the opening of the meeting and Cde. W. S. B. Lockhart acted as Secretary. After the customary two minutes of silence the chair was turned over to Cde. Chas. Baird, from Sherridon, and the meeting proceeded with. Representatives were in attendance from the Chamber of Commerce; Rotary Club; 21st Field Squadron; Trades and Labour Council; Kinsmen Club; B. P. O. Elks. The above guests brought greetings from their various organizations and in turn were told that their presence was much appreciated.

Cde. Clare Sparling was elected Commander of Zone 1 and we are sure that the destiny of the eight branches of the Legion in this district will be very well cared for by Clare for the next two years.

Prior to the meeting the Flin Flon (Continued on page 38)



### MILL

J. McDonald



THE in-between season has caught up to us again, leaving us with nary a word as far as Mill news is concerned. Armad Brown will probably disagree, as Mrs. B. presented him with a

bundle of good news in the form of a daughter. Congratulations! Tried to round up a flock of pics. but the boys seem to be camera shy. We did bid farewell to W. Reader who took off for Edmonton, and Andy Goodwin who transferred to Island Falls. Best of luck fellows. By the time this appears in print rumors have it that Bill Croft will be residing at the West Coast. We have the most enthusiastic fishermen in town in this dept. Sleep and ice don't mean a thing. The Mill spiel went over in a big way as per usual with Del on hand to present the Del Davis trophy to Joe Howat's rink and the consolation to O. Snelgrove. Joe Howat and Geo. Barker were winners of the Hudson's Bay Store event in the Main Spiel. Softball, holidays, fishing and building are the main topics, so far mostly talk. Bud Simpson and Walt Greenway are almost over the big hockey game of last April. Dave Brown who retired this year will be greatly missed around the crusher. Dave came here from Red Lake, Ontario in 1942 where he had worked for 31/2 years. He has one son, David Jr., at present attending school in Winnipeg. Dave is a real Northerner and plans to stay around Flin Flon for a while at least. Best of luck Dave.

### RESEARCH

BRUCE STEWART

SINCE the last issue of Northern Lights the corridors of the Research Labs have been busy with the passage of many feet. Some of these were of the stalwarts who have been long familiar with the department, but others were newer, just becoming acquainted with the ways and manners of the place.

Of these Al Harriot, Roy Ellerman and "Bernie" Gordon, all chemical engineers, have come from work in the Zinc Plant where they have been familiar figures since last spring. Gordon Dash, an electrical engineer destined to be the lab's instrument man, has come from the electricians.

With the fuming plant coming into operation the department finds itself with a fifth division, in addition to the Main Lab., Spec. Lab., Mill and Plant Labs. The fellows who thread their way through the pipe maze of the new plant are Eldon Isherwood, Geoff. Mould, Paul Kawulka, Ken Bradley, F. Pearson and Al Harriot, along with Gordon Dash who is plied for advice on the electrical side of things.

Such a mass migration leaves the Main Lab. rather quiet with Dwight Dahlgren and "Bernie" Gordon not having to push through crowds to get to their setups any more. Another "main labber" shifted out is Steve Merrick who is now in the Spec. Lab.

The vital statistics division for this department has shown a definite slump in the last three months. However, Gordon Dash is to be congratulated on the new addition to his family, even though the blessed event took place while he was still a member of the electrical department.

### COMMUNITY CLUB

J. MULHALL

A SHORT run down of past events, a few statistics and a glance at the crystal as to the future. Curling continues as the top recreation, and with 19 sheets of ice the next year or so seems taken care of. The early start at the Main Arena drew the boys from the outdoor rinks, never to return, but from Bantam to Senior, it was a good season. Our Midgets losing in the North. Sask. finals. Seniors tried for the Allan Cup and the League leading Junior Bombers bowing out to P. A. Minto's who almost made the Western Finals. It took the girls to carry the ball. They came through again with the Manitoba Collegiate and Junior Championships. Congratulations, girls! Figure skating made great strides, and though no carnival was held as in former years, parents and students alike are loud in their praises to Miss "Pat" Allen, and Mr. Chatte.

Attendance on public skating nights gained over last year as did the hockey crowds, 27.49% spectators attended the Junior games this year for an average of approximately 900 per game. The last game of the year with P. A. Mintos set a record for Junior hockey with 1,447 paid admissions. Added to the Saturday crowd of 1,270, this series at 2,717 set another arena record. Hope we may look forward to the Boy Scouts, Elk's Junior Band and majorettes for next season as they provided a great deal of service and entertainment at the arena this past winter.

Dance crowds regret that Wes Vickery decided to retire, (we hope not for good), after being at the old familiar stand for about 12 years. Our best wishes to Wes and the boys. The new band under Hugh McBratney will continue to provide Boogy for the young and good solid danceable music for the crowds every Saturday as usual.

Your Executive had a very pleasant visit

to Island Falls, "The Home of Hospitality" and were fortunate in winning the new Seventh Generator Trophy. Mr. Davis came out of retirement and outcurled our squad in his game but Lady Luck had her way. This trophy will be placed on display on its arrival here, as the boys were putting on the finishing touches.

Turning now to the summer plans, it was decided to turn the Summer Recreational Program over to Tony Dojcak, and also recruit additional help from our willing students who have had several years training as assistants with Al Affleck. By the way, had a letter from Al at the University in Edmonton. He sends regards to all his friends. Jack Eden is carrying on a good program for the tumblers. Mrs. Pat O'Neil's dancing classes are very popular with the younger set and Mrs. Milton's Kindergarten seems to also attract others than her regular classes as her crayons and plasticine have a way of disappearing. Maybe she should expand or raise the age limit. The Hobby Club is not over-crowded folks, and so well equipped too, and toys et al so expensive.

The Hardball and Softball Leagues have amalgamated with Harry Miles in the chair so we can look forward to a big year. Hear they have arranged to bring in "The King and his Court," the great Softball attraction and plan on several hardball tournaments. "Watch the Muckers" by Hammel.

The Community Club negotiated with the Parks Board for a five year lease on Foster Park. Plans for the future include fencing the park and providing better seating accomodations; however, finances being such as they are ways and means will have to be found to make a start on this as soon as possible. Playground facilities, always of major interest, will be provided in the subdivisions in co-operation with the new Parks Board.



The Club Event was nicely presented.

## To The Ladies

"A man is often responsible for a business, a woman for a home, but neither home nor business runs itself. It takes skill."

MONEY cannot buy happiness, it is true, but the way a family manages its money has a great deal to do with making or breaking happiness. It can make all the difference between a feeling of confusion and failure, and a sense of accomplishment and success. Money Management is an expression of planned, orderly living. Whereever you find finances managed smoothly and successfuly, you will find planning of some kind.

No income is ever large enough to buy everything we might like to have any more than any day is long enough to do everything we might like to do. Every day presents a succession of choices which determine a way of living. Financial planning goes deeper than merely dividing dollars and cents among various sections of a budget.

Modern standards of living place health, physical and mental, at the top of the list of family purchaser. But three good meals a day need not be made up of expensive foods; and the happiest home may be a little house at the edge of town. We cannot wait to buy contentment with whatever money may be left after the bills are paid. It must somehow be made part of day by day living.

The need for planned spending becomes more apparent in times of serious economic change, when new adjustments of outgo to income have to be made. Many families, in order to meet increasing taxes and higher prices out of an income which does not increase, need to recognize their real standards of living and seek ways of maintaining them at less cost. Other families, benefiting from the increased payrolls of certain industries, have more money just now than they have had for many years.

Of course, there is a tendency to lose financial balance, spending the increase several different ways at once.

Everyday problems of keeping the family well fed, properly clothed, and warmly housed will go on regardless of world affairs. But it takes more skill than ever now, more attention to new ways of managing and new ways of buying.

"Add a plan to a wish and you have a budget." Making a budget is only planning how to make wishes come true. Therefore, each family's budget will be a little different from every other family's budget, as their wishes are different. The interests of a newly married couple probably center around the new home. They want to buy furniture and set up housekeeping. When there are young children, the budget is shifted around to allow for more rooms, for household help, for life insurance. Parents with children going through school need to buy more groceries and shoes, and often find themselves sacrificing many things to give those children the best education possible.

Each family has the right to decide what to buy with its income, and what to sacrifice. The power to shape their whole way of life through such decisions is greater than many people realize. It is this freedom of choice which makes every budget an individual matter. And since liberty always carries responsibility, choices should be made with thoughtful judgment. Careless, haphazard spending is an abuse of that freedom.

#### MEAT IS EXPENSIVE—COOK IT PROPERLY

To roast meat means to cook by dry oven heat. "Roast" is synonymous with "bake" when referring to the cooking of ham or meat loaf. Only well fatted tender cuts, such as leg and loin of veal, pork and lamb; shoulder of pork and lamb; and ribs, loin and rump of beef, are successfully roasted.

A roast should weigh not less than three pounds, and four or five pounds is considered a more satisfactory size. Too small a roast may not be much thicker than a thick

steak and will dry out in roasting. It is better to plan to use a roast for a second meal than to buy one just large enough for a small family. One-half to three-fourths of a pound of purchased weight should be allowed for each serving of a boned roast or of ground meat.

The two meat roasting methods commonly used are the moderate temperature method and the searing method.

In the moderate temperature method the meat is placed in a preheated oven of moderate temperature, 300 to 350 degrees F., and roasted at this temperature until the meat thermometer registers rare, medium, or well-done as may be desired. The advantage of low oven temperature are less shrinkage, more servings per pound of cooked meat, uniform cooking throughout, juicier and better flavor, no charring of bones and fat, less spattering of fat in oven, and less attention required.

If the searing method is preferred, the meat is placed in the oven and the temperature control set at 475 to 525 degrees F. The meat is browned for 20 to 30 minutes, then the oven temperature is quickly reduced to 250 to 300 degrees F. and the roasting continued at this temperature until the meat thermometer registers rare, medium, or well-done as may be desired.

Searing does not help to retain the juices in meat, although it does develop an aroma, gives flavor to the outside slices only, and sometimes darkens the color of the drippings.

A shallow, open pan without a cover should be used in roasting all meats. A rack should be used to hold the roast off of the bottom of the pan and out of the drippings, except in the case of rib roast where the bones form a natural rack.

Basting is unnecessary. When meat is placed fat side up in an open pan, the fat will melt and run over the lean portion of the roast; thus it is self-basting. If the meat is fairly lean, strips of bacon or salt pork may be added, or fat may be inserted into the roast by the retail meat dealer



with a larding needle. This process is called "larding."

The roast may be salted before, during or after cooking. Salt penetrates not more than half an inch into the meat so it may be added according to the cook's taste.

Flouring is unnecessary. Floured roasts may brown more easily but they are apt to scorch.

Water should not be added to a roast. To do so means that the roast is being cooked with moist heat and therefore is not truly roasting. A moderate oven temperature makes it unnecessary to add water because the drippings do not burn or char.

A meat thermometer provides an accurate means of knowing when meat is cooked the desired degree. The thermometer should be inserted into the center of the thickest portion of the roast, making sure that its point does not rest on bone as bone acts as a heat conductor, or in a layer of fat as the fat acts as an insulator against heat. The thermometer registers the internal temperature of the roast, and by watching the column on the thermometer you will be able to tell when the roast is cooked the desired degree.

Even with controlled oven temperatures roasting by allowing a certain number of minutes to the pound is not accurate because a long, rangy roast needs less time than a short and chunky one, and a rolled roast takes a longer cooking time than one with bones.





Winners of Mixed Bowling League: Mr. and Mrs. Henry Budlong, and Mr. and Mrs. Dick Haire.

## ELECTRICAL DEPT.

As we thought you would already know from reading the last issue of this magazine, our ladies have been engaged in their annual spring bowling. Well, it is all over now and Mrs. Warnick seems to have practically taken over everything but the score sheets, as they won a fair percentage of everything in sight.

Mrs. Hammerstad and her stalwarts came along at the last to win the league and high team 3 game score. Her opponent was Mrs. "Sparky" Sparrow, but the Sparrow aggregation rolled too many bowls down the gutter, and that was that!

Although defeated, the ladies held their wind-up at the Sparrow residence in Willowvale, but this party was a closed affair. I understand the lunch, which consisted of sandwiches, cakes, pastries, et al, were of a very high calibre, especially the "et al," which was certainly better than 30-30. The custodian and keeper of the records was Frankie Stewart and I believe the ladies remembered him suitably.

We have had a pleasant visit with Jim Hudson, an Engineer for the General Electric. Jim, when he is home, will be found in a small hamlet in the U. S. A. known as Schenectady, New York.

The golfing season is certainly going to be something this year: a new course, some new clubs, but the same old balls, leftovers of Jimmy Perkes. Dosco is studying a new treatise on golf, known as "golf after 40," or how to swing without getting out of the Club House.

It is with deep regret we announce the death of Mrs. D. L. McRae who passed away April 20th after a lengthy illness.



Page Twelve

### **SAFETY**

#### L. WALLACE

#### HIGHWAY ZOO

LOOKING through one of our Safety magazines recently, we came across a short article called Highway Zoo. With the holiday season upon us again, and many families planning a trip, it may provide a little food for thought. The Safety Department wishes you all a swell summer and to those taking to the road, a pleasant and accident free journey.

A lot of fuss has been made lately about an American horse and a German dog that have been taught to drive an automobile just like a human being.

What's so amazing about this? Some people have been imitating animals in their driving habits for years. You hadn't noticed? Well, check the types listed below and maybe you will recall having seen one or two of these somewhere.

The Chimpanzee — This is the funny fella who hangs on to the roof of the car with his left hand while driving with his right. This leads to plenty of monkey business in traffic. What the big ape gains by this kind of tactics no one has been able to figure out.

The Jackrabbit — This is the scatback type who zigs and zags through traffic like a frightened bunny. Often he is a portly gent who couldn't waddle a hundred yards in ten minutes. But behind the wheel he's the shiftiest swivel-hipped jerk on the road. A real triple threat.

The Ostrich — This is the personality who believes that if he ducks his head behind the wheel and pays no attention to anything, nothing can harm him.

The Elephant — This is the unpassable type who plants himself in the middle of the road and plods along. He can really liven things up by provoking eager beavers into zooming around him regardless of the risk. Accused of being a traffic hazard, he looks hurt and says, "Who, me? I was only going twenty."

The Peacock — This is the strutter, the thing of beauty who knows darned well that he or she has the pedestrians wringing their necks and bumping head on. However, being too aware of this may

cause their own heads to be turned slightly (one way or another) with startling results. Conspicuous examples are the long-bobbed, good looking gals in convertibles. (With tops, down rain or shine).

The Jackass — This type is as versatile as he is common. He can be the show off who risks his own neck and everybody else's by speeding and weaving. Or he may turn up as the plain oaf who just doesn't savvy that modern driving requires plenty of thought, caution and consideration for all concerned.

The Roadhog—This one has been around for a long time and is the most prevalent and unpopular in the highway zoo. He combines all of the most distasteful habits of the barnyard hog without any of the useful attributes the real porker offers.

There are other specimens in the highway zoo, of course, but one animal we could try to emulate is the horse. First of all we must acquire a good liberal amount of HORSE SENSE. This shouldn't be too difficult for any one of us to do, and we think that having done so our chances of survival on the highway will have been greatly increased.

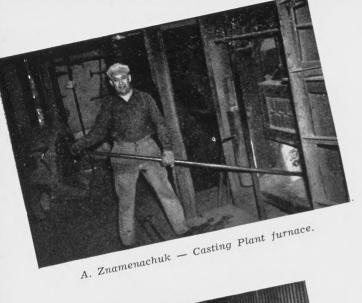
#### SUMMER SAFETY TIPS

IT'S THAT grand and glorious holiday time again. Whether we have one, two or three weeks' vacation, we'll all be seeking a carefree time. The happy holiday is the healthy, safe one. Here are some simple suggestions to help make them safe.

- Avoid deep water and canoes if you are a non-swimmer!
- Learn about artificial respiration you may save somebody's life!
- Take the sun in easy doses sunburn is a real burn!
- Learn what poison ivy looks like then avoid it!
- Be sure your summer water supply is pure!
- Make certain your vacation milk supply is pasteurized — if not, pasteurize it yourself!
- Avoid over-exertion, particularly if you are not accustomed to strenuous exercise!
- In hot weather use more salt in your diet!











### ZINC PLANT

M. MAHAN

OOKING back through our copies of Northern Lights, we find that the Zinc Plant has not contributed any news for about two years. Many things have happened during that time which would have been of interest to our readers. May we mention a few of the most important? On July 1st of 1949, Mr. Carr left us to take over Research where he is now quite settled and content. He pays us a visit almost every week so we feel that he is still interested in us. Eric Austin moved into the position of Superintendent, filling it capably and with the hearty approval and good wishes of all. About that time we began an extensive building or enlarging program, which is now reaching completion. This summer should see it in full operation.

Last spring our employees organized a Social and Recreational Club, with Austin Bailey as president, guiding them through a very successful year. What happened to our Softball Club is ancient history, but this year we are sponsoring a Hardball team and we look for a good season if enthusiasm is any indication. A fishing contest was organized with substantial prizes, which created keen competition and should be well worth repeating. Curling brought the usual arguments and post mortems; we couldn't get through a winter without them. We are sorry to say that the Green Trophy still eludes us. Perry McPherson please note. Other activities undertaken by the club were a children's Christmas party and several dances, all well attended and thoroughly enjoyed.

Fred Smale of Roasters tells us the boys are having quite a time getting used to the noises of the new equipment after resigning themselves to the sound of electric drills, riveting guns and jack hammers during construction. Also the lunch room is a quiet place since Curling and Hockey are over, leaving only the Budget, fishing, boating and the coming Trout Festival as topics of interest. Transfers to the Roasters this spring are: W. Legare, C. Nicholson, H. Joyner and J. Wood.

Page Sixteen

Tommy Leel receives present on resigning from Volunteer Fire Brigade after 15 years.

Tommy Wilson, our Tankhouse newshound, had visions of a nice long vacation from writing but gave in to our pleas for help, though he says with good weather you will probably only glance at the pictures before going out to enjoy some fishing. The Casting Plant donated Mel Aune, Angus Tabak and Whitey Sheppard to the Tankhouse, which apparently settled rumors which have been bothering the boys for the past two years. Other additions to the growing list of the more fortunate include Oscar Nelson, Doug. Derkson, W. Kowal, Len Vickaryous, A. Vancoughnett and Bill Sturley. Mel Muir, Fred Berry and Phil. Shotten have returned from a two year rest on the Carpenter crew.

The extension to the Casting Plant is now completed and most of the changeover as well.

New furnaces have been built, the casting racks re-arranged, new atomizer built and quite a number of men added to the payroll.

The new furnaces use oil instead of coal for fuel and so far show more economical operation. The racks now run east and west instead of north and south, with, of course, an increased number to take care of greater production.

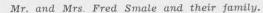
Other items of interest in this new section are: central control room, cadmium storage room, truck repair and store room, and a combined lunch room for the C.P. and Tank House.

The big fish in the picture was landed by A. Abrahamson. With it Albert won a cash award and holds the Zinc Plant Trophy for one year. Congratulations Al!

The Leaching plant are playing hard to get, so for this issue we have nothing to report on them. We do know that they have many new faces and the grapevine tells us there should be a few weddings for our next write up.



Al Abrahamson won the Angling Contest with this northern pike.





Locker room bull session, Casting Plant.





### WINNIPEG OFFICE

A. GILLIES

IT may be late in the day to mention curling, but it is our first opportunity to mention the results of the important-to-usgames which were played off this spring. After all, it's only two months since winter and too soon to report on golf. This year we joined forces with the Miller-Macdon-

ald staff to make up four rinks, which played scheduled games each Monday after work. Final results indicate that the rink skipped by Norman Wildgoose, of Millar Macs was superior, finishing with half a game ahead over Mr. Weber's rink. Ozzie Buchanans men won third place, and Gordon Mc-Veys rink had the dubious honor of placing last. Members of the rink were: Wildgoose, Rummery, Kenway, and Gillies; Weber, Young and Pearson; Buchanan, Mc-Rae, and Blake; McVey, Hayward, Tibbs, and Keeley.

Bi-Monthly get-togethers among the men in

the office are also over, and now the boys have arranged weekly golf games to be held each Monday at Windsor golf course. Bill Tindall jumped the gun by playing his first game at the Canoe Club golf course on April 8th. Seems a little early, but then, maybe Bill needs the practice.

We are glad to have Mr. Ayre back after his stay in the hospital. He claims he'll be fit as a fiddle in no time — and he certainly is looking well.

We were sorry to see the Flin Flon Bombers lose the hockey games they played here, for they certainly played well. Better luck next year, fellows!

Mr. Bringhurst has returned from a holiday across the border, where he covered a lot of territory, travelling from Salt Lake City to the west coast and then down to California.

Ruth McFadyen will soon be leaving the H. B. M. staff, and after her June wedding to Ian Patterson she will make her home in Toronto. And it looks like Shirley Clint will be having a busy year ahead of her, after being elected president of Beta Sigma Phi Sorority. Betty Smith has taken her green Austin off winter blocks and is again loose upon the public. She claims to have al-

loose upon the public. She claims to have almost 5,000 miles driving time to her credit, and in that time has only been involved in half a dozen accidents — none fatal. Who says women aren't good drivers?

Joan Aston has been displaying the cup she won for ladies' singles tennis champion of Sir John Franklin Community Club. She plans to spend her holidays at Fairhills, Detroit Lakes, this summer, where she'll undoubtedly dazzle our good neighbors with her footwork.

Fewer members of the office staff are joining the Canoe Club this summer. So far only Shirley Clint,

Moira Mackenzie and Bill Tindall have taken out memberships, and all are entering the golf section. Margaret Fraser and Betty Smith plan to play at Windsor and other courses.

Ozzie Buchanan is the latest member of the H. B. M. staff to move over to Norwood. He'll shortly be moving into his new home in that suburb, where Stu Hayward and Roy Enman have been living for several years. Out in St. James, Horace Burgoyne has almost completed the work he's done on the unfinished rooms of his home, and is very proud of his handiwork.

Erma Hamilton has not yet returned from Mexico, but post cards she has mailed north indicate she's having a wonderful time. We were hoping to have some pictures of her trip for publication this time, but now we'll have to wait until the next issue.



Dolores Loewen and Joan Aston stroll down Portage Ave.



Ran and Martha MacTavish were married in February.

### MAIN OFFICE

KAY SMITH

PRACTICALLY everyone in the office is discussing summer holidays, some studying road maps and figuring how to get the farthest away on the money and time allotted. Jerry and Joyce Trueman have purchased a new Chevrolet and, of course, are taking to the road. "Babe" McCullum and husband are holidaying down East in June. "Johnny' Bell got an early start, she went to Vancouver and down to the States with her brother. Mr. Porteous of the Accounting Office is holidaying in England. Leion Clarkson reported a wonderful

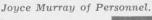
Leion Clarkson reported a wonderful time at the Trappers' Festival and Banff where she journeyed with the Carnival Queen.

Edith Seamer and Norm Snyder are to be married on the 9th of June at Rivers R. C. A. F. Station. Myra Pettapiece and Art Lindsay, of the prospecting crew of

(Continued on page 38)



Shower for Elizabeth Roche who married Jack Proctor of Island Falls.



Lorna Franks comes to us from Melvile.

Mrs. C. Eagleton, Stew Department.











Crew members, just back from hammering bomb installations in France, report for interrogation.

Being the factual record of an operation over Dessau, Germany, by R.C.A.F. Bomber Command in the autumn of 1944.

DURING the early years of World War II the work of Bomber Command was overshadowed by that of Fighter Command. The latter's victory over the Luftwaffe in the Battle of Britain was followed by daylight bombing raids on enemy industrial targets. Then, since the Luftwaffe had complete control of continental skies, it became necessary to resort to attacks by night.

By 1942 new aircraft had been designed for the highly technical job of carrying the war at night to the enemy. The Halifax and Lancaster bombers were the work horses of the R.A.F. Bomber Command. By this time all-Canadian squadrons were also working with Bomber Command. The roar of heavily laden aircraft leaving the English countryside for "Happy Valley" and other points in the Reichland became a familiar and ever increasing sound. Navigation methods and navigation aids were improved by scientific research. Electronics and radio became involved in a war behind the scenes—new inventions by both German and British scientists were designed to offset each other. Thus the tide of aerial warfare swept back and forth during the years 1941 to 1944.

To increase the accuracy of night bombing fleets a specialized Pathfinder force was developed in 1942. This force, made up of several R.A.F. squadrons and one Canadian squadron, developed a technique for locating targets and marking them with aerial and ground flares. The flares then became aiming points for the following bomber stream. As a result of this, bombing accuracy increased tremendously.

Before starting our story proper, let's take a look at a typical Airforce Bomber Command Station situated "somewhere in England." Buildings in the average airforce station were kept as far apart as conveniently possible in order to minimize bomb damage from German hit-and-run raids. As a result the bicycle became the standard means of locomotion. Airforce personnel lived in wooden barracks or the ubiquitous Nissen hut with its round gal-

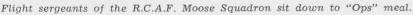
vanized iron roof, cement floor and blackout curtains. These huts were grouped into communal sites and scattered around the perimeter of the airdrome. Mess buildings, theatre, post office, gymnasium and chapel were also located in their respective communal sites.

An administration centre was usually located near the airdrome control tower. There one found briefing rooms, clothing stores, aircrew lounge room, and parachute room. The hospital was usually found in some quiet corner of the station. Air raid shelters were scattered throughout the station and at all communal sites.

Aircraft were located at their own dispersal points around the perimeter of the airdrome. Near each aircraft was a small canvas-covered shack to shelter the ground crew servicing their charge. Half a dozen ground crew men - fitters, (engine mechanics), riggers (airframe mechanics) and instrument men were attached to each bomber aircraft. That particular "kite" became their "baby" and come hell or high water it was ready to fly when needed. If any engine (never motor) were found to be unserviceable, even an hour or two before take off time, it could be torn down and reassembled. One could rest assured it was as nearly perfect in running condition as human hands could make it. Aircrew generally became quite attached to their own particular ground crew and spent many off-hours together. Such was the general layout of an R.C.A.F. Bomber Command Station.

The daily routine with no operations in sight started with personnel cycling to their respective messes to get breakfast, which often as not was sawdust-like sausage and well watered powdered egg. Then on bicycle to the flight rooms with pilots reporting to their respective flight commanders, navigators to navigation officers, bomb aimers to bombing leaders. If weather was unfit for flying, classroom lectures were in order. If weather was suitable for flying, and no operations signal had been received from bomber command







R.C.A.F. Lancaster Bomber.

headquarters then a flight training program was assigned each crew. For fighter affiliation a fighter aircraft made dummy attacks on the bomber, the latter taking evasive actions. The fighter pilot reported on the bomber pilot's ability in eluding him. In gunnery practice—generally carried out over the North Sea-the gunners would fire at a smoke float dropped on the water. Occasionally an air drogue was used as a target. Bombing practice usually consisted of small smoke bombs dropped on a ground target, the results being assessed by two observers stationed on the ground. Blind bombing practice consisted of a timed run from a navigation "fix" to a specific town. And, of course, there were cross-country trips, practice navigation flights of an hour or two duration to keep the navigator on his toes.

After 2½ to 3 hours' training the air crew returned to base and a meal of brussels sprouts, cold mutton stew, tea and vitamin pills. Afternoon duties were usually quite light. Checking aircraft equipment, skeet shooting for gunners to keep their reflexes sharpened up, dinghy drill, a drill carried out by the whole crew in their aircraft while parked at the dispersal point. It was a simulation of a crash landing in the water—"ditching." This latter was quite interesting.

Each man took his respective place in the aircraft and plugged his headphones into the intercom system. The pilot then as-

sumed an altitude and the navigators a position over the North Sea or the coastal part of France. At a warning from the pilot that a ditching would be necessary, due to perhaps a holed petrol (never gas) tank, the crew went through the ditching drill the aircraft position was determined and radioed to the air sea rescue people in England along with the expected time and place of ditching. Petrol tanks were emptied to give more buoyancy to the aircraft after landing on the water. Any bombs on board were jettisoned. Escape hatches were removed (those on top of the fuselage only). At a second signal from the pilot the crew took up crash positions in the central part of the aircraft near the main wing spar, the aircraft within four or five hundred feet of the water. The pilot signals when the plane has landed on the water and immediately the crew leave the aircraft, taking with them an emergency ration supply, radio and kite to raise the radio aerial. The rubber dinghy, which is located in the starboard wing, is inflated and the crew embark, leaving the supposedly rapidly sinking aircraft. Thirty seconds was allowed from the time the aircraft landed until the dinghy and crew were afloat. (One crew returning from the valley and expecting to ditch had taken up crash positions when the intercom went out of order—the pilot in the meantime managed to reach an east coast emergency station and crash landed his Lancaster on

the runway—the crew being ignorant of all this left the aircraft and inflated their dinghy before noticing they were on dry land.)

In the way of recreation the station movie was always popular, with officers at the rear, in raised seats. The seating was slightly different on occasion, as for instance a moral-lifting leg show. Then the officers sat in front. Mess entertainment was varied — darts, dominoes, shove-ha'-penny, and the popular "mild and bitters." A "Line Book" was always handy. Any mess member caught shooting a "line" had the story entered in the line book and paid the usual penalty, a round for each man in the mess.

When Bomber Command planned a night operation a signal was sent to all squadrons concerned by the previous noon. That signal gave all details of the raid as planned including the number of aircraft required from each squadron. The squadron commander picked out the crews required and a list of the pilots' names with time of briefing was posted in all the messes and flight rooms. Crews were anxious that they should not miss an "op." The average tour of operations required about 35 trips and everyone seemed to be in a hurry to find out how his luck would hold out.

#### OPERATION TO DESSAU, GERMANY

The signal from Bomber Command has come through and pilots' names posted. Operational crews spend their spare time checking their aircraft and then sleeping, as no one knows as yet where the "op" is, or how long the trip may take. An hour before briefing the crews have an "ops meal" of bacon and eggs, toast and coffee—a meal that is obviously enjoyed despite the implications.

As briefing time approaches the crews gather at the briefing room dressed in their flight boots, heavy sweaters and battle dress. Personal belongings are left in tagged bags with the intelligence section. Escape aids and candy rations are picked up and distributed to crew members. Escape

aids consist of two plastic cases about  $5'' \times 6'' \times 1''$  made to fit into battle dress pockets. These cases contain equipment that would be useful if one is shot down over enemy territory and attempting to leave the country on foot. They contain small compasses, oil silk maps of Europe, knife, razor, fishing equipment, medical supplies, water purification tablets, language sheets, and two weeks' concentrated rations.

For briefing the crews are seated at long tables, one crew per table, windows are blacked out and doors locked. The briefing officer, generally the squadron commander, announces the target for the night-DESSAU. It is pin-pointed on a large wall map at the front of the room and a red ribbon marks the route to and from the target. After the "ohs and ahs" have subsided the C.O. gives an account of the operation as planned. First the reason for attacking this particular point — Dessau contains large marshalling yards and is a key communications centre. Second, the number of aircraft and types-400 heavy bombers about half of which will be Lancasters. Third, fighter cover, if any - at night a few squadrons of night fighters will operate with the bombers. These are usually Mosquito twin-engined aircraft. Their main function is to harass the enemy night fighters at their own bases in Germanythey give no actual support to bombers in the bomber stream.

The type of raid to be carried out is then discussed. There are several possible types which may be used.

1. Newhaven—used when the target will be free of cloud cover. The Pathfinder aircraft, of which there may be two or

Lancasters "bombed-up" awaiting crews from briefing room.





Waiting for crews.

three dozen, drop flares by parachute on the target area. These illuminate the country and the aiming point. The aiming point is then marked by red or green flares which burst a couple of thousand feet above the ground and cascade down onto the ground, burning there for three or four minutes. The master bomber and his deputy, flying about the target, direct the bomber crews by radio, calling for bombs directly on the ground flares or perhaps a slight overshoot or undershoot depending upon the relation between ground flares (called T. I.'s for target indicators) and the aiming point.

2. Wauganui—used when the target will be cloud covered. Pathfinder aircraft locate the target by dead reckoning or radar and drop flares which hang on parachutes at altitudes varying up to 15,000 feet depending on the height of the cloud cover. The master bomber then directs bomber crews to drop bombs on these sky flares. The flares are so placed that bombs dropped on them will continue down to the aiming point below the cloud cover.

3. Oboe — on short operational trips a target might be marked by flares dropped from Mosquito aircraft with a special remote control type of navigation whereby the pilot is instructed by radio from England when to drop his flares. Bomber crews then use these flares as aiming points.

The tactics to be used during the trip are discussed. On this particular trip to Dessau the crews will stay at low altitudes below 2,000 feet until they reach a point well inside France before climbing to their operating height. On certain legs of the trip altitude will be varied in order to keep the enemy confused. By staying below

2,000 feet German radar will not be able to pick up the bomber stream until within short range. The German radar screen covered all approaches from the west.

After the C. O. has given a general brief of the operation to Dessau further briefings are given by the officers in charge of particular sections.

#### METEOROLOGICAL BRIEFING

The "Met" officer is the usual Englishman nicknamed Cloudy Joe—a somewhat controversial figure on the operational station. At times he has to withstand considerable ridicule and is blamed for the weather, much as the peacetime weather man. He tells the crews what might be expected in the way of weather during the flight.

A cross section is drawn on a blackboard showing clouds and cloud heights from base, across the channel, over Europe and at the target. With the use of a projector barometric pressure lines are superimposed on a map of the continent, thus showing the positions of weather fronts that would have to be contended with during the trip. Icing conditions are discussed, cloud breaks are noted with their elevations so that crews may be able to make use of them, and wind velocities and directions considered. Just before an operation take-off, a Mosquito aircraft would report back from a "met sweep" over the proposed route as a check on the meteorological predictions.

The Ruhr Express, first Canadian-built Lancaster to become operational in Europe.



#### NAVIGATION BRIEFING

Navigators and pilots are briefed on the track and turning points on various legs of the trip to and from the target. Each turning point is to be reached at a specific time. Courses to be flown are calculated from the wind speed and directions predicted by "Met." These of course will probably have to be changed later as wind variations are encountered en route. A rice paper flimsy containing essential navigation information is given each navigator. In the event of being shot down each navigator is expected to eat the flimsy to guard against information getting into enemy hands. All navigators and pilots synchronize watches at this time.

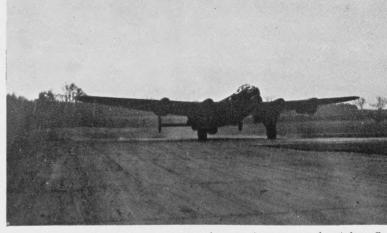
#### INTELLIGENCE BRIEFING

The senior intelligence officer discusses flak and searchlight concentrations. British intelligence could predict how many heavy, medium and light flak batteries could be expected at various towns en route. Crews are advised when to expect to encounter enemy fighters. Escape tactics in the event of being shot down are discussed.

#### BOMB AIMER'S BRIEFING

Bomb aimers are briefed separately on the details concerning the bombs being used, fuses, order in which bombs are to be dropped, and the setting up of the bombsight and its control panel. Large-scale pictures and photographs of the target are studied and memorized by the bomb aimers.

The bomb aimer's duties, apart from the actual bomb drop itself, consist of watching for enemy aircraft and dropping "window." Windowing is the release of metallic-covered strips of paper from the aircraft in bundles—one bundle every few minutes. This is done over enemy territory and is an aid in confusing the German radar screen. Each bundle opens up into a cluster of metallic strips, which give a "pip" on the German radar somewhat similar to that produced by an actual aircraft. This reduces the chances of an aircraft being singled out for flak treatment. When



Heavily laden Lancaster turning on to runway for take-off.

caught by radar-operated flak batteries, an aircraft could confuse the gunners by rapidly releasing a number of bundles of window.

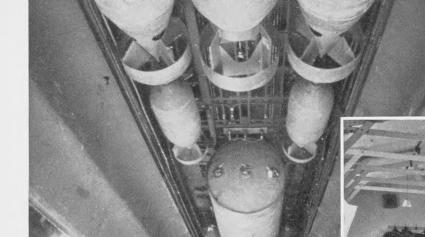
#### WIRELESS OPERATOR'S BRIEFING

To prevent jamming by enemy radio the frequency used by bomber command is changed every few hours. These frequencies, plus those reserved for emergency use, as well as other secret data, are given to the wireless operator in a rice paper flimsy—to be disposed of in the same way as that of the navigator.

The briefing completed, crews go straight to their particular aircraft after first picking up parachutes and Mae Wests. Trucks carry the crews to the dispersal point. Last checks are made on aircraft equipment.

At this time the station padre and C.O. usually pay each aircraft a visit. The padre carries a supply of chewing gum, cigarettes and "wakey-wakey" pills for those who think they might need a stimulant. These latter are useful for gunners who may become overtired due to cramped positions and cold.

Ten minutes before take-off time crews take their positions in the aircraft. The intercom is checked with each man—pilot, engineer, bomb-aimer, navigators, wireless operator and two gunners. Engines are started and checked, radar equipment is also checked. Any unserviceability is indicated by releasing a red Very cartridge from the aircraft. This brings the ground crew service trucks to do last-minute repairs. If the aircraft is unserviceable the crew takes over one of several spares always in readiness.



Lancaster bomb-bay with a 5 ton load of high explosive. Large bomb in centre is a 4,000 pound "cookie," or block-buster.

Officer's barrack hut.

As the time for setting course arrives each passes over the airdrome on course and on time. At a few thousand feet all crew members plug in their oxygen tubes, as a liberal supply of oxygen aids night vision and helps to keep the crew warm and awake.

The bombers from the various squadrons scattered about southern England fly on converging courses until the entire raiding group is flying in what is called the "stream." As each plane has a different time to reach turning points, and eventually the target, the bomber stream stretches over many miles in length and two or three miles in width.

Our Lancaster "C" for Charlie has set course from the base at 1743 hours (5:43 p.m.). We have climbed to our altitude of 2,000 feet in a few minutes, and half an hour of flying over the now darkening countryside brings us into the ever growing bomber stream. The aircraft fly along independently but yet in close proximity. Our first turning point is at Reading, west of London. We reach it at 1803 hours right on time and the navigator instructs the pilot to turn on a course calculated to carry us across the English coast at a predetermined position. We have now reached the English Channel. Any noticeable casualness in the crew disappears, the gunners fire a few practice rounds to make sure the

The aircraft, in this case Lancasters, are now taxiing around the outside perimeter track and approaching the down-wind end of the runway to be used. Individual aircraft move out of their dispersal points and into line for take-off positions. Since the trip will take approximately eight hours, the Lancasters are taking off in daylight but will be flying in darkness by the time they reach the French Coast.

On receiving a green light from the traffic control officer the first Lancaster moves down the runway. Weighing up to thirty-three tons the aircraft gains speed slowly and after using up a mile of runway lifts into the air. This is the crucial moment of any take-off, even a momentary engine failure could cause trouble. As soon as the first Lancaster is clear of the runway the second in line takes off.

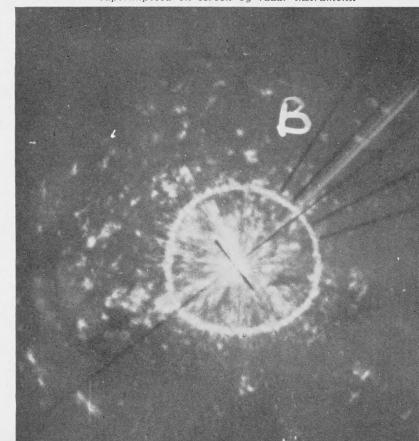
There is a complete radio silence maintained by both aircraft and airdrome control tower - any transmission could be picked up by German listening posts. More than one raid ran into heavy going because of idle talk or disobedience of radio silence.

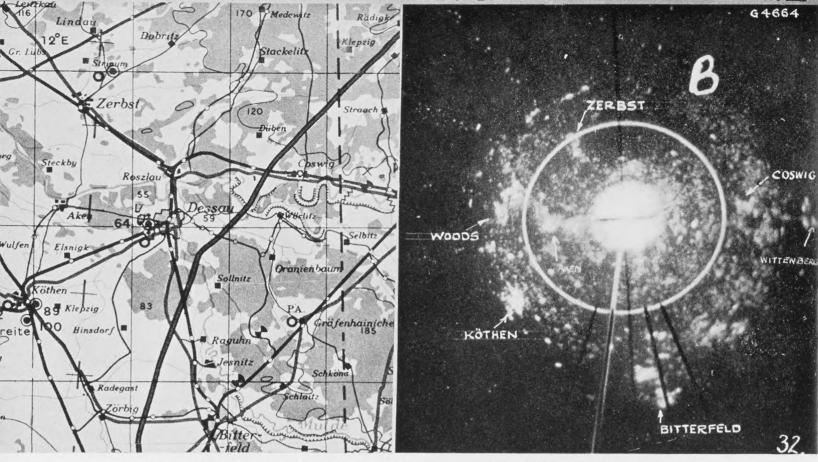
Once the aircraft is airborne and climbing, a thorough checkup is made once more on the engines, aircraft performance, bombsights and navigation equipment. As there is still time before setting course on the first leg, the Lancasters circle around the airdrome vicinity climbing steadily. Brownings are working properly and the crew settle down to the business in hand. Very little conversation is carried on. All that can be heard over the intercom is the occasional word between the navigator and pilot or between pilot and gunners. It has become dark except for the last red color behind us in the sky-no lights are shown anywhere. The navigators are hidden behind their blackout curtains and the pilot and engineer read the cockpit instruments by their luminosity. The gunners are carrying out a systematic search of the sky above and below-one must keep a lookout for friendly as well as unfriendly aircraft. The other aircraft have all but disappeared in the growing darkness as we cross the French coast south of Dieppe. In a few minutes we are over the battle area of the American, British and Canadian ground forces. Continual gun flashes are visible but little else. Before long we pass into enemy-held territory. We are now climbing as rapidly as possible - already the German radar screen has picked us up and is vectoring enemy night fighters in our direction. We must be at operating height before they contact us. Our next turning point is Sedan, France, and to reach it on time our navigators have had to make course alterations because of variant wind speed and directions. Navigational "fixes" are taken every few minutes by radar and dead-reckoning. Our course is designed to keep us clear of towns and known enemy ack-ack batteries. To stray a few miles means trouble. The bomb aimer is tossing his bundles of "window" through a port in the glass nose at regular intervals.

Near Aachen we have reached 18,000 feet and level off to maintain a steady cruising speed. There we encounter our first enemy activity. We must run through the searchlight belt surrounding the Ruhr valley cities. Heavy flak is spasmodic but the radar-operated batteries are picking away at the stragglers. The enemy night fighters have finally contacted us—the first to do so drop parachute flares which attract others to the bomber stream.

We reach a point 5 miles north of Cologne at 2016.3 hours, which means we are 0.7 minutes early, but since a few minutes are much more easily lost than gained we do not waste the excess time. It may be handy later on. Cologne itself is covered with an umbrella of bursting flak and is a very obvious landmark at this point. Our course now is designed to carry us to a point 60 miles west of Berlin and 50 miles north of the target Dessau. Enemy activity has increased considerably—there is no cloud cover and the night fighters have good visibility. Bombers caught by flak or fighters become torches that light up a huge area. Aircraft shot down are logged and a note made of their positions in the navigator's log. By now the only crew members not keeping a lookout for danger are the navigators under their blackout curtain. At 2040 hours we alter course to by-pass a heavy flak battery and in doing so lose the extra time we had in hand. All towns along our route are throwing all they have in our direction it seems. Occasionally a "scarecrow" bursts in the sky—a heavy shell designed to look like an exploding aircraft. Some of them aren't We by-pass Braunshweig scarecrows.

Photograph of navigator's radar screen taken automatically when bombs were released. White patches represent groups of buildings in the Ruhr valley city of Essen. White circle is superimposed on screen by radar instrument.





Map issued to the navigator to aid him in identifying aiming point—Dessau. The picture of radar screen on the right is what the navigator sees when the aircraft is in position to drop its bomb load. Various towns in the vicinity of Dessau may be identified.

(Brunswick) with its searchlights and flak and reach our turning point north of the target at 2140 hours. We now alter course to due south. This course alteration confuses the night fighters who until now had concluded we were aimed for Berlin. The navigators now give the wind speed and direction and aircraft height and speed to the bomb aimer who feeds this information into the bombsight computer box. The bombsight is now ready for use. A few minutes before the first bombs are due to be dropped the Pathfinder crews drop their flares upon the aiming point — these are now visible in front of us. Fifteen miles short of the target the bomb doors are opened and the bomb aimer directs the pilot to the target. The navigators are now using a ground position indicator to aid in directing the pilot (this is an arrow indicating the aircraft position transposed by light on to a target area map). Conversation between the bomb aimer and pilot goes something like this - "left, left, steady," (pilot alters course left) "right, steady, steady, steady." (A very small alteration right.) "Steady, steady," (aircraft is coming up correctly on to the target).

The master bomber circles the target area with his deputy giving instructions over his radio transmitter. All bomber aircraft listen on his frequency and follow his instructions. If a red flare or flares have been dropped to mark the aiming point the master bomber calls for bombs to be dropped on the flare. If the flare is slightly off the aiming point he will ask for bombs to be dropped in such a manner as to be accurate. That is, he might instruct the bomb aimers to make an overshoot or undershoot or to aim to port or starboard of the flare. At regular intervals other Pathfinder aircraft drop new flares to reveal the aiming point.

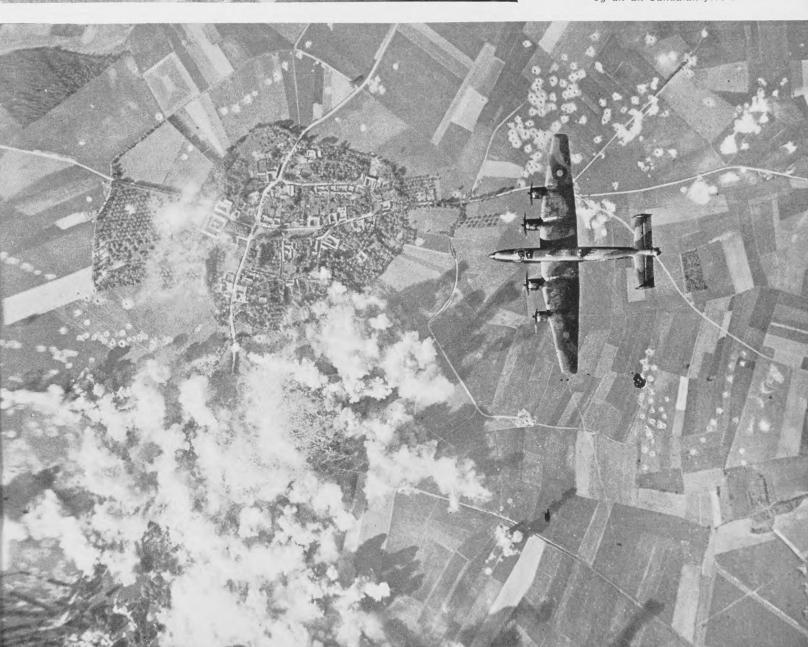
When the bombsight cross-hairs and target coincide, the release button is pressed and with "bombs going—bombs gone" the Lancaster leaps upward as the heavy load leaves the bomb bay.

We must stay straight and level for another thirty seconds — the longest thirty seconds in a lifetime. As the bombs were dropped a flare was released automatically from a flare tube in the rear of the aircraft. This explodes in thirty seconds illuminating the country below. At this instant a camera installed in the bottom of the air-

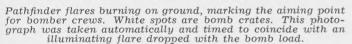


Flares, dropped by Pathfinder aircraft, burn on the ground and mark the aiming point (black circle) for the folowing bomber stream.

Attack on enemy flying bomb installations. This was a 500 ton attack by the R.C.A.F. Bomber Group, regarded as one of the most successful carried out by an all-Canadian force.









Incendiary bombs and flares burning on the Ruhr valley city of Dusseldorf.

craft opens its shutter and takes a picture of the target. In this way bombing accuracy can later be assessed. After the red cockpit light flashes, indicating that the camera has done its duty, we are free to take evasive action to throw off any fighters in the target area and to escape from the concentrated flak barrage.

The danger of being hit by falling bombs must be guarded against by a careful lookout above. The navigator gives the pilot his course to fly from the target and as quickly as possible we get out of the area of illumination provided by bombs, flak bursts and searchlights still in operation.

As we leave the target area on the first leg home a quick assessment of the calibre of the raid is made and logged.

We are now travelling at a higher speed because of the lack of the bomb load. Focke Wulf 190's are active in the target area and we weave through the sky to throw them off. To avoid a direct attack the pilot executes a violent corkscrew-like motion with his aircraft and in the darkness usually eludes the pursuer. The danger lies in being caught unawares. The bomber carry-

ing up to 1500 gallons of petrol makes a beautiful target. Long range twin-engined enemy fighters can follow the bomber stream all the way back to England and at no time must the constant vigil be relaxed. We are now flying toward the southern part of Germany to by-pass the Ruhr Valley. The return trip takes us past Nuremburg with its flak umbrella, between Mannheim and Stuttgart, each putting up flak and searchlights to warn us off. Flak now becoming sporadic and night fighters are having to return to base to refuel. We pass Metz in France, then Rheims and turn northward to cross the French coast south of Boulogne. Some crews become careless after seven hours of flying and tension and the enemy night fighters are aware of that. Various ruses are used to distract a gunner's attention. While one fighter feints on one side another closes in from the opposite side. Bombers have even been shot down over their own airdromes when preparing to land.

Our return course carries us across the channel to Reading, west of London—the area of London and the Thames estuary being as dangerous to fly over as many

German cities. Four years of German air raids have made the British gunners very touchy.

We reach our base in southern England almost simultaneously with the rest of our squadron. Pilots call the control tower, identify themselves and receive their landing instructions. Damaged aircraft or those with wounded on board receive priority. On landing we taxi to our dispersal point and turn the aircraft over to our ground crew who have been waiting. They, as well as we, are glad to see the old kite parked in her place again.

The crew truck picks us up and returns us to the flight section. We turn in our chutes and Mae Wests and move on to the interrogation room. Here the padre greets us with coffee and rum.

The crew is interrogated as a whole by the intelligence officers — they want to know about bomb damage on the target, time of bombing, enemy activity, aircraft shot down, parachutes seen, and any other information which might be of use in further raids. Afterwards the navigation, bombing, and wireless sections are reported to. The Met. man wants to know what we thought of his predictions. We give him a report on weather over the continent. All that remains after the interrogation is another ops meal of bacon and eggs. By now another day is dawning and another group of crews await the signal from Bomber Command.

(Pictures courtesy of Director of Public Relations, R.C.A.F., and private collections.)

Halifax bomber completing its bombing run over Le Havre where Canadian heavies plastered a German garrison with high explosive.





Baggage jalopy goes aboard on Lake 1 on the Island Falls summer route,

Stenographer Jean Kuleba does a spot of filling her off hours.

South end of Mari Lake. First leg of route to Isand Falls.

### ISLAND FALLS

W. R. SOUTHWORTH



THEY have a brand new baby girl at the Tom Willey home. She arrived March 26th and her name is Brenda Bernadette. Miss Natalie Wonitowy of our dining hall staff was transferred

to the cafeteria staff in Flin Flon early in March and her job here was taken over by Miss Irene Maurer-Hylas, formerly of the

cafeteria staff in Flin Flon. Miss Marion Pegg of Oxbow, Sask., joined our dining hall staff shortly after New Year. Mr. and Mrs. Mervin Rush left here February 1st to make their new home in Shawinigan Falls, Quebec. Merv has a job with Canadian Industries Ltd. After many years residence here the Harry Whiteley family moved to Flin Flon in April. Harry is working for the Company in Flin Flon. Best of luck in your new work, boys. This moving is not a one-way traffic by any means. In April we were very glad to welcome Mr. and Mrs. Garnet Jeffrey and son Bill back to our town. Garnet worked here for ten years or so then moved to Hamiota for four or five years, but finally decided there was no place like the north, so back

Cupid was shooting his arrow about quite freely around here the last week in March. He scored a direct hit on three of our boys. On March 29th, Jack McInnes, long time operator here, married Miss Margaret Fisher in The Pas. On the same day our good friend Jack Proctor, from across the river at Sandy Bay, married Miss Elizabeth Roche in Flin Flon. A couple of days later, on March 31st, our prospecting friend, Art (Slim) Lindsay, married Miss Myra Pettapiece in Flin Flon. Their many friends here wish these three happy couples many many years of happy married life.

Mr. and Mrs. Bill McLeish and daughter Margaret left in May to holiday in Scotland and European points for a couple of months.

After a number of years on Camp maintenance work, Sid Foden has been transferred to the plant operating staff, and his place at the community hall was taken over by Andy Goodwin, formerly of Flin Flon.

The following local citizens purchased cars this past winter: Messrs. Leslie, Olson, Christensen, Hagberg, Westbury, Simpson, Johansson, Cameron, Bailey, and Bowman. Some were in the automobile class and some were merely jalopies. They all had to be brought in during the winter, as that is the only time of the year we have a road through to Flin Flon, over the frozen lakes and cleared portages. Most of these vehicles were bought by boat owners to run back and forth between home and boat dock.

One of the finest boats ever built here was completed last spring by Roy Bunn. Roy spent all his spare hours during the (Continued on page 38)

### MECHANICAL & CONSTRUCTION

C. R. Delgatty

FUMING Plant operation has necessitated the transfer of several men from the Mechanical Department. Ross Haggarty of the Coal Plant and Aubrey Norquay, a journeyman machinist who received his training in the Machine Shop, are heading the repair crew in the Fuming Plant.

From the Power House go Jim McQuaid, Ted Summers, W. J. Adams, Joe Lechowicz, Ted Hawkins and Doug Kendrick to operate the new boiler installations.

Carl Norlander, who has been with the carpenters during construction, is now in

the Coal Plant.

Bud Barker has left with Mrs. Barker and his family, for International Nickel, in Sudbury, Ontario. Bud served his apprenticeship as a boilermaker from 1941 to 1946, with two years out to do a chore with the Royal Canadian Navy. Bud's work has been outstanding, and our best wishes go with him to his new field of endeavour.

Two old-timers have left the carpenter gang, having retired May 1st. O. S. "Happy" Barger started with the Company in October, 1929, as carpenter, and later as carpenter foreman. He and Mrs. Barger have motored to the west coast, with the intention of making their home there. "Hap" lived up to his name, and his genial disposition and undying enthusiasm for his work, were an inspiration to all who came in contact with him. The farewell party will long be remembered.

James A. Muir has been with the carpenters since 1941, and he intends remaining in Flin Flon, following his retirement.

This promises to be a busy year in Mechanical and Construction. Many jobs have been postponed because of Fuming Plant construction and the building of the water line from Cliff Lake is one of top priority. North Star mine, roads, buildings and installation of equipment has begun to get underway, and so a new chapter in Northern Manitoba mining is being written.

Walter Hicks, Petty Officer with the Royal Canadian Navy, spent a short leave in town recently, and called around at his old stamping grounds, the Machine Shop, to renew acquaintances.



Dick Eger has finished his apprenticeship and has his own machine.

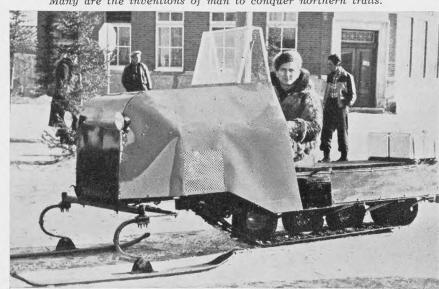




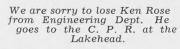
Larry Johnson presents Hudson Bay Mining Trophy.

## "Round About Town"

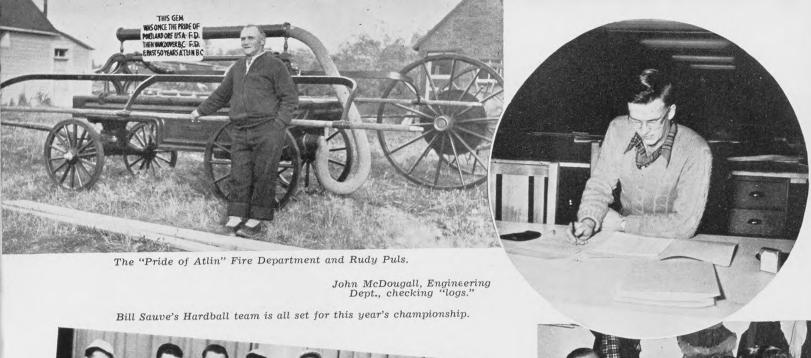
Many are the inventions of man to conquer northern trails.



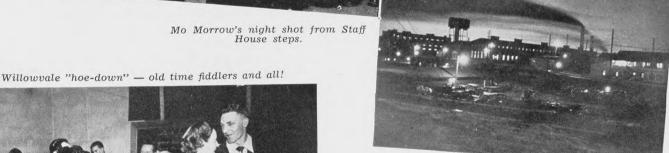
The winner Joe Highway of Brochet is greeted by Festival Queen at The Pas. End of the 140 mile race. Tom Holmes and Foster, of C. G. E. stayed close to Herb Kitchen (centre) in March.











Peter Peterson and Cliff Setterington hold informal talk with Income Tax Inspector Wookey.





Flin Flon and it's environs is beautiful. Guard against fire and leave all picnic spots in clean and safe condition.

(These pictures submitted by local amateur camera enthusiasts).

### GUIDING IS FUN

THE first patrol of Girl Guides in Flin Flon was organized about 18 years ago and, from that first group, led by some people who are still active in Guiding, the movement has grown to a closely-knit organization with some 200 Guides and their leaders. They are organized under their division and district commissioners who are, in turn, connected with the Provincial and Dominion offices. Each Guide. through this form of organization, is in touch with Guides all over the world their sisterhood is unique; their creed and their activities are all the same. Barriers of race, language and distance fall away when young people become a part of this universal movement.

The Guide law, which is the same everywhere, encompasses honour, loyalty, thrift, usefulness, courtesy, obedience and all things which promote good citizenship and a sense of service to others. Membership is extended to any girl irrespective of race and creed.

The movement was originally a spontaneous effort promoted by the girls themselves, adapting the principles of their brothers, the Boy Scouts, who had formed in England. Sir Robert (later Lord) Baden-Powell, with the help of his sister Agnes, devised the Girl Guide scheme in 1910. Later, Lady Baden-Powell, his wife, took over as chief commissioner and organized the county of Sussex under the same plan as the Boy Scout organization: that is, with patrols and leaders which are linked to headquarters by divisional and district commissioners. This was in 1915, and since then the Guide movement has grown by leaps and bounds. It spread from Great Britain to the Dominions and Colonies and, by 1918, had spread to almost every country of the world, each with its own network of organized Guides. In 1923 Lady Baden-Powell was elected permanent chief commissioner and the movement was grant ed a royal charter of incorporation.

There are many highlights in the Guide year; Boy Scout-Girl Guide week, cookie week, and, of course, camp. Many Guides have enjoyed camping experience at Camp Whitney. Camping is one of the best experiences in Guiding. It teaches co-operation, self-reliance and, of course, is primarily a holiday — a holiday with girls in the same age group. Many Guides have made

(Continued on page 38)

### GOING ON A PICNIC THIS WEEKEND

EVERYBODY enjoys a Sunday or a holiday. Even a half-holiday is something to look forward to, especially in the good old summer-time. Mom packs a picnic basket. Dad looks over his fishing tackle and checks the tires, gas and oil in the car. The kids get out their bathing suits and off they all go to a favourite picnic or fishing spot in a forest.

But not for the forest ranger. Forest rangers look forward to weekenders with something like dread. On weekends, during the fire season, they are kept constantly on the "alert"—ready for instant action.

Unfortunately, it does appear that those very people who love the outdoors-who travel many miles each week-end to relax in the quiet depths of a forest—to picnic in some shady forest glen—to fish—or to stalk game in the autumn—are all too frequently the very ones who most flagrantly neglect their obligations to their forest and to their fellow men. Some leave cigarette butts, matches and campfires burning as they move about or when they start for home. Others forget all about their car ash trays and toss lighted cigarette butts out of their car windows to roll to the edge of the road, ignite the dry grass and debris, and spread to the bush, starting a forest fire.

Some subsequent week-end these same people pack up again. They motor back to that lovely holiday spot in the forest. They are surprised and indignant to find that the beauty they sought just isn't there any more.

"Some imbecile," they say to each other, "has burned out our favourite picnic spot." They never seem to realize that they, themselves, were the culprits.

How that favourite spot has changed! Instead of an area of green forest replete with merchantable timber and clear, cool waters, there remains a bleak vista of blackened stumps in which no one would care to visit and of brackish waters in which no self-respecting fish would live.

When will these week-enders learn? Will they ever learn to be careful with fire in the forests? To break their matches and hold until cold? To crush out cigarettes on rock or throw them into the water? To use their ash tray? To drench their campfires thoroughly — until they are surely dead out?

Most of these people know that if they

set fire to a neighbour's fence or his home they must pay for the damage done and probably, in addition, be obliged to pay a stiff fine, perhaps even serve a jail sentence, for criminal negligence. But the man who burns hundreds, and in some cases thousands, of acres of valuable forests goes blithely on back to his home with his trout and his tall fishing stories — and no one ever tells him that he, too, is criminally negligent — that he, as much as the man who set fire to a fence, should be sent to jail.

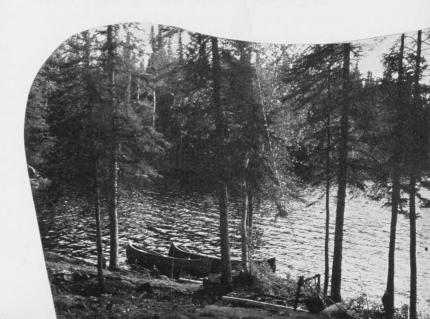
Perhaps too few people ever see the result of their carelessness or recognize it as such. Very few people have seen a forest fire close up, especially the one they started themselves. It is usually some time after they are safely on their way back to town that the flames reach their height. By that time, there are only the weary rangers, fighting that fire, to view the awful thing that has happened.

Far too few people have seen the aftermath of a forest fire — the thousands of acres of blackened derelicts that men once admired as trees — tall, strong, trees that would have made hundreds of future homes — perhaps for the very people who started the fire.

Forest fires, like criminals and racketeers, thrive only because of the apathy and indifference of the people. It is because of this apathy and indifference that we, the people, remain responsible for nine out of every ten forest fires.

These man-made forest fires rob the people of Manitoba of considerable wealth every year. It is a case of the people robbing themselves! What a lamentable paradox!

No other tax on the people of Manitoba is quite like that accruing from forest fires.



#### MAIN OFFICE

(Continued from page 19)

Island Falls, were married in March and are back from their honeymoon.

It's rather late for curling, but we would like you to know that Ethel Block of the Pay Office is the first lady to get her name on the "Green Trophy." She was one of the Harry Grose rink.

Newcomers to Personnel are Lorna Franks of Melville, Ella Lyon of Portage la Prairie, Joyce Murray also of Portage, and Jean Jamieson, a local girl. Myrna Longmore, daughter of Vic Longmore, is the new messenger girl.

Vic Howell is busy planning a summer cabin on Blondie's Beach.

Bob McLaughlin was around recently with cigars announcing the birth of a daughter. Sjaane Thompson, a former employee of Personnel, also had a baby daughter.

#### CANADIAN LEGION

(Continued from page 6)

Executive entertained the visiting delegates at a dinner which was the means of getting acquainted with the out-oftowners.

Cde. Bert Johnson was elected District Sports chairman and undoubtedly will do a lot to promote sports between the various branches.

Cde. Chas. Baird, the retiring Commander, presented a trophy for Curling competition between branches.

The Colour party, for the first time, wore the new regalia and presented a very fine appearance dressed in the official Legion blazer, hats, etc.

The meeting passed a resolution to be sent to the Provincial Command convention which is held in Winnipeg in May. This dealt with a D.V.A. matter concerning small holdings for Veterans and will ask that the Department consider opening up these small holdings in this part of the country.

Cde. Geo. D. Weaver, Member of Parliament for Churchill constituency, gave a very interesting talk which was well re-

Following the close of the meeting a

social hour was enjoyed and the opinion of all was that the Convention was a decided SUCCESS

#### ISLAND FALLS

(Continued from page 32)

winter on this 18 foot lake cabin cruiser masterpiece, and it is just that, a masterpiece by a master craftsman. Well done,

Bill Grayson, that veteran boat builder from away back, has just completed a beautiful cabin cruiser job for the Com-

pany's use on Mari Lake.

Word from a couple of old-timers in Brazil indicates the Sig Ingimundsons and Bill Shaws are getting along well south of the equator. They are both working for Brazilian Traction Company. Sig is with the hydro-electric construction department in Sao Paulo and Bill is in charge of a frequency changing station at Aparecida, about half way between Rio de Janeiro and Sao Paulo. The Shaw's will be on their first three year leave this summer and plan to visit friends here.

Our golfers are looking forward to some good golf this summer on Flin Flon's fine

new grass course.

#### GUIDING IS FUN

(Continued from page 36)

lasting and interesting friendships through them.

Each Company is self-supporting. Funds are raised by such projects as the cookie week. No Guide may solicit for funds without giving value for the money received.

Much of the success of our future civilization depends on our youth. What better way is there to foster understanding and peace than to encourage our children in their activities in a world-wide organization such as Scouts and Guides.

It is interesting to know that at the

Biennial Conference of the World Association of Girl Scouts and Girl Guides at Copperstown, New York, in August, 1948 (at which Canadian and American Guides were co-hostesses) there were 26 different nations represented. Based on the world friendship theme, a film was made here featuring a Canadian Girl Guide and an American and a Brazilian Girl Scout camping together.

And above all, since they are young and must "have fun," let's tell our girls -"Guiding is a game — play it well!"

### CLEAN CAMP SITES

THIS article is addressed more to the weekend campers than to those who enjoy their leisure moments picnicking at Phantom Lake. Just the same, it applies to all who take advantage of our beautiful country and the wonderful opportunities offered to get close to nature.

A campsite should be left in a clean, neat condition. A littered campsite is an abomination. It is an insult to the next traveller. Even in remote wilderness country, the same campsite may be used frequently. Good campsites, where there is fuel, fresh water and a suitable clearing for camping, are often scarce, so others who follow after you will gravitate to such a spot. Or the campsite may be an average day's travel along a creek or trail. Or it may be a good hunting or fishing spot. The fact that you chose it is reason enough to presume it may be used again.

There is nothing more out of place or more discouraging than a campsite that has been left looking like a garbage dump. The forests are the nation's beauty spots and should be kept in that condition for those who follow after you.

When you have finished with a camping spot, pile any tent poles that you may have cut and used. These may be scarce in the area and will be very handy for others. Even when tent pole timber is plentiful, other campers will be saved the trouble of cutting their own and young timber will be conserved. Freshly cut green poles are best, but any you leave will be serviceable for a considerable time. The tent poles should be piled clear of the ground. Next, any wood or dry kindling remaining when you leave should be stacked neatly on top of the poles and covered with loose bark or evergreen foliage to shed the rain, so that it will be in good condition for others.

Before leaving camp, every scrap of camp refuse should be picked up and burned in the fire. Cans should be buried. When



this is done, the camp fire should be put out thoroughly—and be sure it is out.

If the campsite is near a trail or negotiable creek, others less experienced than yourself may pass that way when they are temporarily twisted in their directions. You can be a courteous forest traveller by indicating the compass directions in an unmistakable manner. This is done by placing three twigs in the ground to represent East, West, South and form an N for North by using three short sticks. A sloping stick pointing north is a standard sign used by many woodsmen in extremely remote areas. Such signs may never be seen again, but take only a few moments to make. Perhaps they will be seen when needed very much by some lost person, so it is time well spent.

The forest is home to a true woodsman so don't be thoughless, but continue to be a gentleman while in it.

Be thoughtful and considerate of others, not only in the way you leave a place, but whenever you may have occasion to use someone else's property. The sanctity of the trappers cabin is respected in the North, yet sometimes, as one gets closer to civilization there seems to be a disregard for the rules of fair play. No trapper, no person with an unoccupied cottage would object to his property being used for an emergency. Respect this privilege and leave everything as you find it, and if you have benefitted thereby, leave a thank you note.

### POEMS, PUNS AND PHILOSOPHY

#### TAKE TIME

Take time to work — it's the price of success.

Take time to think — it's the source of power.

Take time to play—it's the secret of health.

Take time to read — it's your source of knowledge.

Take time to be friendly—it's the road to happiness.

Take time to dream—it's your talk with the stars.

Take time to be helpful—life's too short to be selfish.

Take time to laugh—it's the music of the soul.

Take time to pray . . . it's eternity.

#### THANATOPSIS

. . . So live, that when thy summons comes to join

The innumerable caravan, which moves
To that mysterious realm, where each shall
take

His chamber in the silent halls of death,
Thou go not, like the quarry-slave at night,
Scourged to his dungeon, but, sustained
and soothed

By an unfaltering trust, approach thy grave

Like one who wraps the drapery of his couch

About him, and lies down to pleasant dreams.

\* \* \*

The little six-year-old had just received a detailed lecture from his father on the facts of life, the birds and bees, and simple biology. Papa leaned back at the end of the recital and said, "Now, if there is anything else you want to know, don't hesitate to ask me, son."

The boy pondered a minute, then gravely asked his father, "How come they put out the Saturday Evening Post on Wednesday?"

The waitress watched as the customer put eight spoonsful of sugar in his cup of coffee and proceeded to drink it without stirring it first.

"Why don't you stir it" she asked.

The customer regarded her coldly and said, "Who likes it sweet?"

\* \* \*

If all our misfortunes were laid in one common heap, whence every one must take an equal portion, most people would be content to take their own and depart.

-Socrates.

\* \* \*

A friend is a person with whom I may be sincere. Before him, I may think aloud.

The bearded hillbilly on his first visit to the big city saw people stepping up on a weighing machine, putting pennies in the slot, standing motionless for a moment and then retrieving slips of cardboard from the tray at the bottom of the machine. Finally he got up enough courage to step aboard. He dropped in a penny and out popped a card with Van Johnson's picture on it. He studied it closely, then stared critically into the mirror of the machine.

"Shucks," he said, turning to an onlooker, "this contraption don't take much of a picture, does it?"

Be not afraid of life. Believe that life is worth living and your belief will help create the fact.

\* \* \*

Someone has said that if you want to see how important you really are in this world, stick your finger in a bucket of water, then look at the big hole it leaves when you pull it out.

#### PICTURE CREDITS

Coloured cover by R.C.A.F. Public Relations. Inside front by Pat Delgatty, and inside back by Ted Tadda.



# HIGH FLIGHT

By John Gillespie Magee, R.C.A.F.

Oh, I have slipped the surly bonds of earth And danced the skies on laughter-silvered wings,

Of sun-split clouds—and done a hundred things

Sunward I've climbed and joined the tumbling mirth You have not dreamed of—wheeled and sourced and swung

High in the sunlit silence. Hov'ring there

I've chased the shouting wind along and flung My eager craft through footless halls of air.

I've topped the wind-swept heights with easy grace Up, up the long, delirious, burning blue

Where never lark, or even eagle flew. And, while with silent, lifting mind I've trod

The high, untrespassed sanctity of space,

Put out my hand, and touched the face of God.

This sonnet was written by an American pilot in the R.C.A.F., at the age of 19.

It is a classic expression of courage combined with faith, and reflects the high ideals of the young men of Bomber Command. it is a classic expression of courage comb of the young men of Bomber Command.